

TWO NEW SPECIES OF *SENECIO* (ASTERACEAE) FROM SONORA, MEXICO

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ABSTRACT

Two new species of *Senecio* are described from Sonora, México: *S. riomayensis* B.L. Turner, an annual belonging to the series *Senecio* sect. *Annui*; and *S. tepopanus* B.L. Turner, a shrub belonging to the series *Palmatinervii* (= *Roldana*). The former is related to *S. mohavensis*, the latter to *S. angulifolius*.

KEY WORDS: Asteraceae, Senecioneae, *Senecio*, *Roldana*

Routine identification of Mexican Asteraceae has revealed the following novelties.

*Senecio riomayensis* B.L. Turner, *sp. nov.* TYPE: MEXICO. Sonora: Río Mayo Region, "Canyon de Lopez, west of Mesa de Abajo, 28°09'40"N, 109°02'10"W", 1350 m, 17 Mar 1988, *P.S. Martin, G. Ferguson, K. Moore s.n.* (HOLOTYPE: ARIZ!).

*Senecioni mohavensi* A. Gray similis sed foliis plerumque basalibus, caulibus ac foliis initio arachnoidei-tomentosis (vs. glabris), et acheniis moderate pubescentibus trichomatibus brevibus papilliformibus (vs. dense strigosis) differt.

Delicate annual 10-15 cm high. Stems arachnoid-tomentose at first, mostly glabrescent with age. Lower leaves mostly 2-4 cm long, 1.0-1.6 cm wide; petioles 1-2 cm long; purplish beneath, at least the lower portions persistently arachnoid, the margins irregularly serrate. Upper stems with leaves much-reduced, ovate, sessile, clasping. Heads 1-4 to a stem, the ultimate peduncles mostly glabrescent, 2-4 cm long. Involucres campanulate, ca. 5 mm high, 4 mm wide (pressed), the bracts ca. 13, somewhat carinate, linear-lanceolate, the apices green. Ray florets 1 or more, much-reduced, the tubes ca. 4 mm

long, the ligules ca. 0.5 mm long. Disk florets ca. 35 (estimated from 1 head), the corollas yellow, ca. 3.5 mm long, glabrous, the tube grading into the throat, the lobes ca. 0.25 mm long. Achenes (immature) ca. 1.5 mm long, moderately papillose-pubescent throughout with short stubby hairs, not at all strigose.

This delicate annual superficially resembles *Senecio mohavensis* A. Gray, both belonging to the sect. *Annui* of *Senecio* (Barkley 1985). It differs from the latter in having leaves mostly basal (vs. rather evenly dispersed along the stem), an arachnoid-tomentose vestiture (vs. glabrous) and achenes moderately pubescent with very short papillose hairs (vs. densely strigose-pilose).

It is possible that the present novelty is a recent or ancient introduction from some extra continental xeric region, much as postulated for *Senecio mohavensis*, which has been convincingly shown to have an African-Asian desert origin (Liston *et al.* 1989). Regardless, the taxon is not clearly associated with any of the Mexican species of the section *Annui* (Barkley, in prep.), nor can I relate this to yet other taxa elsewhere.

Dr. Theodore Barkley (pers. comm.), after reviewing this paper, suggested that I compare the present novelty with the African *Senecio abyssinicus* Sch.-Bip., an annual species with a chromosome number of  $2n = 10$  (Turner & Lewis 1965). After examining material of the latter from MO I conclude that any close similarity is largely superficial, mainly habit. *Senecio riomayensis* differs from *S. abyssinicus* in having more numerous involucre bracts (ca. 13 vs. ca. 8), calyculate heads and arachnoid-tomentose vestiture (vs. sparsely pilose to glabrous).

*Senecio tepopanus* B.L. Turner, *sp. nov.* TYPE: MEXICO. Sonora: Tepopa, Río Mayo drainage, "Upper Sonoran; dark canyon", 9 Mar 1935, Howard S. Gentry 1411 (HOLOTYPE: ARIZ!).

*Senecioni angulifolio* DC., *similis sed foliis 5-lobatis* (vs. 7-11-lobatis), *capitulis capitulescentia nuda stricta cymosa atque 15-30 cm lata dispositis, pedunculis ultimis plerumque 2-3 cm longis* (vs. 0.5-1.5 cm longis), *involucris ecalyculatis, et corollis radii ligulis 12-14 mm longis* (vs. 1-5 mm longis) differt.

Shrub or shrublet 1-2 m high. Stems reddish-brown, densely glandular-pubescent with minute hairs. Midstem leaves mostly 10-25 cm long, 6-16 cm wide; petioles 3-15 cm long, pubescent like the stems; blades palmately 5-7 nervate, broadly ovate to orbicular in outline, glandular-puberulent beneath along the veins, 5-lobed, the lobes ca. as wide as long; the margins entire, ciliate with glandular-puberulent hairs. Capitulescence a broad stiffly-branching naked terminal open cyme 15-25 cm across, the ultimate peduncles mostly 2-3 cm long, pubescent like the stems. Involucres campanulate to hemispheric,

9-10 mm high, the bracts ca. 13, lance-elliptic, glandular-pubescent dorsally, the margins broadly scarious. Ray florets mostly 8, the ligules yellow, 10-12 mm long, 2-3 mm wide. Disk florets 20-30 per head, the corollas ca. 10 mm long, yellow, glabrous, the tube ca. 4 mm long, the lobes ca. 1 mm long. Achenes fusiform, 9-10 ribbed, glabrous, the pappus of ca. 50 white fragile slender bristles 5-7 mm long.

ADDITIONAL SPECIMEN EXAMINED: MEXICO. Sonora: Tepopa (27°19.3'N, 108°44'W), 1250 m, "springs and waterfall at upper edge of short tree forest mixing with oaks", *Martin et al. s.n.* (ARIZ,TEX).

When originally examined I tentatively positioned this taxon within the widespread highly variable *Senecio angulifolius* (series *Palmatinervii*, Barkley 1985), largely because they share similar foliage and vestiture. *Senecio tepopanus* is readily distinguished from the latter by its large stiffly-branching "cymose" capitulescence, ecalyculate heads and well-developed ray florets; additionally, it is known only from the area of Tepopa, Sonora, whereas *S. angulifolius* has a more southern distribution, occurring from Jalisco to San Luis Potosí and southwards to Chiapas.

The type sheet bears the following interesting observations: "Shrub one to two meters high. Has an odor like some exotic perfume I have noticed in feminine company."

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